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DERWENT-WEEK: 198835

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TITLE: Organic nonlinear optical material comprises
polymer of aminoacid ester of nitro-substd. conjugated pi-
electron system contg. cpd., used for photo-switch,
photo-memory, etc.

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PATENT-FAMILY:

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JP 63175838 A	July 20, 1988	JA

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
JP 63175838A	N/A	1987JP-006069
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INT-CL-CURRENT:

TYPE	IPC	DATE
CIPP	C08G69/10	20060101
CIPS	G02F1/35	20060101
CIPS	G02F1/355	20060101
CIPS	G02F1/361	20060101

ABSTRACTED-PUB-NO: JP 63175838 A

BASIC-ABSTRACT:

An organic nonlinear optical material contains a monomer in which
cpd. of formula $O_2N-G_1-X=Y-G_2-Z$ (I) is bound with the ester part of a
polymerisable aminoacid ester. In the formula, G_1 and G_2 = the same or different,

bivalent
cyclic or chain pi-electron conjugated system gp.; X and Y = the same
or
different CH or N; Z = atomic gp. having reactive functional group
joined
directly with G2 by N or O.

Pref. single polymer of the monomer, or copolymer of the monomer with
another
amino acid or its deriv. is used as organic nonlinear optical
material.
Aminoacid or deriv. to be copolymerised with the monomer is e.g.
alpha-helix-forming aminoacid such as glutamic acid, methionine,
alanine,
leucine, etc. or derivs. thereof or alpha-helix-destroying aminoacid
such as
proline, glycine, tyrosine, asparagine or derivs. The polymerisable
amino acid
ester to be bound with the cpd. of formula (I) is e.g. aspartic acid
ester,
glutamic acid ester, etc. An example of the nonlinear optical
material is
L-aspartic acid ester of 4-nitro-4'-(N-ethyl-N-(2-hydroxyethyl)
amino)azobenzene.

USE/ADVANTAGE - The organic nonlinear optical material is useful for
optical
elements utilising third nonlinear optical effect, such as light
bistable
element, photoswitch, photomemory, etc. The optical material has
large third
nonlinear optical effect and has good mouldability and mechanical
strength.
The material can be simply moulded into film and alignment can be
carried out
easily.

TITLE-TERMS: ORGANIC NONLINEAR OPTICAL MATERIAL COMPRISE POLYMER
AMINOACID
ESTER NITRO SUBSTITUTE CONJUGATE PI ELECTRON SYSTEM
CONTAIN
COMPOUND PHOTO SWITCH MEMORY

DERWENT-CLASS: A23 A89 L03 P81 U14 V07

CPI-CODES: A05-F03; A09-A02; A12-E11; A12-L03; L03-H04A;

EPI-CODES: U14-A02;

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0004 0015 0030 0203 0226 1283 1780 1788 1790 1794 2513
2560 2596

2629 2851 3278

Multipunch Codes: 02& 03& 05& 05- 075 086 141 157 174 192 194 435 437
512 516

524 546 551 567 57& 623 627 649

SECONDARY-ACC-NO:

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